AceBound UVR Technical Data Sheet

Resin Bound high performance UV stable surfacing system

AceBound UVR is a 2-pack system, part A (resin) part B (hardener). Part A and part B have been tested and provide optimum performance. AceBound UVR is a high performance, solvent free, CWA compliant resin binder suitable for vehicular and pedestrian use. AceBound UVR is fast curing and is pre-catalysed for ease of use on site. Should increased curing time be needed or in cooler temperatures, additional catalyst can be added. Please refer to catalyst guidance using QR code on bucket.

Benefits

- Aliphatic resin will not discolor or degrade when exposed to sunlight (tested to **BS EN ISO 16474-3 method A, cycle 1**)
- High slip resistance
- **CWA** (Clean Water Act) and **ADA** (American with Disabilities Act) compliant water permeability up to 2 gallons/sqft/second
- **Low VOC** (Volatile Organic Compounds)
- Suitable for vehicular traffic, up to 7.0 tons: Driveways, carparks, footpaths, patios, pool surrounds, outdoor kitchens, public realm, schools and care homes
- Restricts weed growth therefore very little maintenance
- Vast range of aggregate blends with bespoke and color matching available
- Optimum resin to aggregate ratio therefore no primer required

Manufactured to **UKAS ISO 9001, 14001** to provide quality assurance.

Description

AceBound UVR Resin Surfacing is a resin bound aggregate surface suitable for both vehicular and pedestrian traffic. The open matrix of the surface allows water to freely permeate and therefore provides a fully CWA (Clean Water Act) compliant surface: reducing flood risk (allowing water to flow into water courses).

As an aliphatic resin binder formulation, the coating will not deteriorate or discolor when exposed to typical US weather conditions as tested to **BS EN ISO 16474-3** method A, cycle 1. Providing a strong high-performance system.

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Quality and Testing

All products are quality controlled in line with UKAS ISO 9001:2015 Quality Management System standard.

The performance of the resin binder as part of a resin bound system will meet the industry guidance notes 2021.

Resin bound for external application guidance is produced and issued by industry leading experts feRFA (the Resin Flooring Association) www.ferfa.org.uk.

Suggested Base Build Up

Please consult stuctural engineer

	New Construction – Foot Traffic	New Construction Light Vehicular	Overlay Existing Base – Foot Traffic	Overlay Existing Base Vehicular Traffic
AceBound UVR	@ ¾ inch	@ ¾ inch	@ ¾ inch	@ ¾ inch
Geo Grid	N/A	✓	N/A	N/A
Ace ResiMesh	✓	✓	✓	✓
Coarse Sand for Leveling	1/2 Inch	1/2 Inch	N/A	N/A
Crushed Stone Base	Clean well compacted minimum 4 inches	Clean well compacted minimum 6 inches	N/A	N/A
Existing Sub-Base	N/A	N/A	Concrete, tarmac, block paving etc	Concrete, tarmac, block paving etc
Geo-Textile Membrane	✓	✓	N/A	N/A

Alternative base: Concrete

When considering permeable concrete for your base the following should be considered if constructing a new one:

1. Concrete bay proportions should be ideally 1:1 and should not be greater than 3:2, long narrow strips of concrete will crack across the bay width and these cracks are likely to be mirrored in the surfacing to mitigate this Ace ResiMesh should be installed.
2. Ensure that the concrete has a minimum design strength of C30 and that the concrete has a minimum compressive strength of 15-20N/mm2 before the surface is prepared. This is likely to be a few days after installation.
3. Prepare the concrete surface to remove laitance and provide a lightly textured surface to ensure adequate adhesion, vacuum shot blasting is the preferred method.

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Instructions for Use:

Preparation

1. The surface of the base, whether concrete or any other sub-base must be clean, dry and free from loose materials.
2. Ensure that falls are in place to provide adequate drainage when applying to an impermeable base.
3. Protect all edges abutting soft landscaping with brick, concrete, aluminium trims or other such edge detail to prevent damage to the surfacing. Edgings should be securely fixed to prevent movement.
4. A flexible joint filler should be used at edgings where there is potential for movement to create separation.
5. Where AceBound UVR Resin Bound Surfacing is to be applied to a non-permeable base, gaps or weep holes should be created in the edging, to allow drainage of water.
6. When applying AceBound UVR Resin Bound Surfacing to concrete bases, all movement joints, stress relief joints and day joints must be expressed in the resin bound surfacing.

Mixing

1. Place **Aggregate blend** (220 lbs) into a clean, dry, forced action mixer (minimum capacity/power 32 gallon/1.8kW). Mix until the aggregate is evenly blended. Do not over mix the aggregate as this may cause grinding, creating dust and could result in a patchy surface. Approximately **30 seconds** will suffice.
2. Scrape all the contents of **AceBound UVR Resin binder, component B**, into the larger component A container and mix with a slow speed drill (≤ 450RPM) and MR2 paddle mixer attachment for **1-2 minutes** until homogeneous.
3. Immediately add the mixed resin binder to the aggregate in the mixer. Mix the aggregate and resin binder together until all the aggregate is evenly coated. Mix for approximately **1-2 minutes**. Over mixing will increase heat generation, reduce working time and may affect the color. It is recommend to use a timer when mixing. Inconsistent mixing times may cause color variation.
4. Pour in the 13.75 lb sand and mix for a further **1-2 minutes** until evenly distributed.

Application

1. Discharge the mixed resin binder and aggregate onto the prepared surface, level and smooth using a steel trowel. Excessive compaction will reduce permeability.
2. Finish the surface with a suitable float avoiding overworking which may result in "trowel burn". To remove tacky built up resin binder on the trowel, soapy water may be used. Ensure the trowel is dried before it comes into contact with the resin binder - the use of white spirit to is not acceptable.
3. For improved slip-resistance on steep gradients, apply **AceBound Anti-Slip Aggregate** to the wet resin at the rate of approximately 3.5 ounces/10 sq feet , avoid a patchy appearance by scattering evenly.
4. Always ensure that a wet edge is maintained, joints between mixes will be visible unless the older mix is still workable.

Application conditions & performance

AceBound UVR Resin Binder has been designed for typical weather conditions associated with the USA. Under these conditions the resin binder will be considered UV light and heat resistant and will not discolor.

Application during or before rain is not recommended. Rain on the surface may affect the bond between the molecules during the cross-linking process, reducing the strength of the system. This may also cause blooming. Note that application to a damp substrate will reduce bond strength. Ensure unmixed aggregate is always kept dry, wet aggregates will cause the same effect. Care must be taken to keep the mixing station dry, to avoid moisture/water becoming entrapped in the mix.

Mix design & coverage

AceBound UVR Resin	**16.5 lbs**
AceBound Aggregate Blend	**220 lbs**
AceBound binder sand	**13.75 lbs**

Theoretical coverage 37 square foot @ 3/4 inch this does not take into account compaction, undulation of the sub-base or wastage.

Contractors

AceBound UVR Resin Bound Surfacing System is a specialist product and must only be applied by specialist applicators. Do not apply or allow it to be applied by contractors who do not possess the necessary skills and experience. You should consider appointing an Ace Resin Ltd approved contractor.

Working/Curing Time and Temperatures

Temperatures can affect both the curing time as well as working time. Increased temperatures will speed up these processes, lower temperatures will decrease both. **AceBound UVR Resin** binder will cure sufficiently to receive foot traffic in 4 – 6 hours at 70°F, between 24 – 48 hours for vehicular traffic and 7 days for full chemical cure.

Slip Resistance

AceBound UVR provides high slip resistance BS7976. While it already offers excellent slip values, high slip resistance cannot be guaranteed on areas with inclines once associated additional frictional demands have been taken into account. Resin bound should be carefully considered by the client if appropriate in these instances. The addition of a glass scatter into the wet resin before cure may be considered to increase slip resistance further.

Curing

Allow to cure and open to traffic as described in **"Working Times and Temperatures"**.

Cleaning Tools

Tools and equipment may be cleaned after use with White spirit or other solvents, such as xylene or toluene, care must be taken to ensure that these chemicals do not come into contact with either uncured or cured AceBound UVR surfacing once installed.

Shelf Life

Shelf life of AceBound UVR Surfacing:

Resin: 6 months if product remains sealed

Aggregate: Unlimited shelf life if kept dry and free from condensation.

Health & Safety

Refer to Safety Data Sheet.

On Site Technical Support

Ace Resin representatives are happy to offer on-site technical support and will offer general indication of the correct method of installing an Ace Resin Ltd product. It must be remembered that Ace Resin Ltd is a manufacturer and therefore it's the responsibility of the contractor and his employer to ensure he is aware of (and implements) the correct practices and procedures to ensure the correct installation of the product. Liability for its correct installation lies with the contractor and not with Ace Resin Ltd.

Storage Conditions

Shelf life of AceBound UVR Resin Bound Surfacing Resin is 6 months, aggregates have an unlimited shelf life. Store materials in clean, dry, frost free warehouse conditions between 40°F and 80°F away from direct sunlight.

The information detailed in this document is liable to modification from time to time. Customers are advised to check that they possess the latest version by contacting Ace Resin Ltd and quoting the version number. Any person or company using the product without first enquiring as to the suitability of the product for the intended use, does so at their own risk. Ace Resin Ltd can accept no responsibility for the performance of the product, or for any loss or damage arising out of such use.

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